

REMARKS

Reconsideration of this application, as amended, is respectfully requested. An RCE accompanies this Amendment.

In this response, claims 1 and 6 have been amended. No claims have been canceled. No claims have been added. Support for the amendments is found in the specification, the drawings, and in the claims as originally filed. Applicants submit that the amendments do not add new matter.

Applicants reserve all rights with respect to the applicability of the Doctrine of Equivalents.

Claims 1-3 and 6-7 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 2002/0039944 to Ali (“Ali”) in view of U.S. Patent No. 4,758,208 to Bartos (“Bartos”).

Applicants do not admit that Ali is prior art and reserve the right to swear behind Ali.

Amended claim 1 reads as follows:

A two-arm belt tensioner for a belt drive, comprising:

 a fixed portion, designed to be fixed to a supporting structure;

 a first arm and a second arm, carried by said fixed portion and hinged thereto about a common axis;

 a first pulley and a second pulley, mounted idle on respective ends of said arms and designed to co-operate with respective branches of a belt of said drive; and

 elastic means, which force said arms towards one another to maintain said pulleys in contact with said respective branches of the belt, said arms comprising respective first arrest elements, which are designed to interact with said fixed portion to define respective first positions of arrest of said arms under the action of said elastic means, and respective second arrest elements, which are designed to interact with said fixed portion to define respective second positions of end-of-travel of said arms under the action of the pull of said belt, said fixed portion comprising a base plate, a pin fixed to said plate and defining said common axis of rotation of the two arms, said belt tensioner being characterized in that said fixed portion includes a single appendage fixed to said base plate and defining a stop for said first and second arrest elements of said arms so as to define for each arm a travel limited between a first position of arrest and a second position of end-of-travel.

(Amended claim 1) (emphasis added)

The Examiner acknowledged that:

“Ali does not teach ‘said arms comprising respective first arrest elements, which are designed to interact with said fixed portion to define respective first positions of arrest of said arms under the action of said elastic means, and respective second arrest elements, which are designed to interact with said fixed portion to define respective second positions of end-of-travel of said arms under the action of the pull of said belt.’” Ali also does not teach ‘said belt tensioner being characterized in that said fixed portion includes a single appendage fixed to said base plate and defining ~~an element of contrast~~ for said first and second arrest elements of said arms.’” (Office Action, pp. 3-4).

As set forth above, amended claim 1 requires a single appendage fixed to a base plate.

Bartos, in contrast, discloses “pawl 50 [that] is pivoted ... to the mounting bracket 22 so as to rock back and forth”(col. 4, lines 2-3). Thus, Bartos discloses a rocking pawl 50 that is hinged to the mounting bracket. In contrast, amended claim 1 refers to a single appendage fixed to a base plate. Bartos fails to disclose a single appendage fixed to a base plate, as recited in amended claim 1.

Further, referring to Bartos, the Examiner has indicated (Office Action, p. 10) that two adjacent teeth 46, 48 of each of the arms correspond to the first and second arrest elements of claim.

Applicants respectfully disagree. Bartos discloses the following:

Still referring to FIGS. 1 through 3, the upper tensioner arm inner end 36 has a series of six detent teeth 46 arranged in an arc about the axis of the shaft 12. The lower tensioner arm inner end 34 has a corresponding series of six detent teeth 48, also arranged about the axis of shaft 12. The two series of teeth 46 and 48 do not overlap to any great extent and are located in different planes. A latching pawl, designated generally at 50, is formed with an upper claw 52 in one plane, and a lower claw 54 in another plane. Pawl 50 is pivoted at 56 to the mounting bracket 22 so as to rock back and forth. When rocked clockwise as in FIG. 1, upper claw 52 engages between a pair of upper tensioner arm detent teeth 46, while lower claw 54 is spaced away from lower tensioner arm detent teeth 48. This may be conveniently referred to as the first latching position of pawl 50. When pawl 50 is rocked counterclockwise as in FIG. 2, which may be termed the second latching position of pawl 50, the converse is true.

(Bartos, col. 3, line 61-col. 4, line 11) (emphasis added)

In particular, Bartos discloses the following:

Referring next to FIG. 1, given the relative part locations and spring strengths described above, it will be seen that, in the FIG. 1 generating mode, the locking pawl return spring 58 will maintain latching pawl 50 biased toward, and in the first latching position. The engagement of upper claw 52 between a pair of upper tensioner arm detent teeth 46 disables the upper tensioner arm 30, that is, prevents it from swinging toward lower arm 32. The upper tensioner arm idler pulley 40 then acts, in effect, as if it were rigidly mounted, and engages the upper belt run 18' without moving, apart from its dead spindle rotation. The lower tensioner arm 32, however, remains active, engaging and tensioning the lower belt run 18" under the force of tension spring 44. This is exactly what is desired, since, in the generating mode, the upper belt run 18' is tight, while the lower belt run 18" is slack.

(Bartos, col. 4, lines 36-52) (emphasis added)

As set forth above, in Figure 1 Bartos discloses the configuration that corresponds to the "generating mode" of the starter-generator, in which tensioner arm 32 is blocked by pawl 50 which is rotated clockwise and engages teeth 46 of arm 32. In this configuration, the other tensioner arm 34 is completely free to move and is not subjected to any arrest element defining an end-of-travel position. Similarly, the configuration of Fig. 2 corresponds to the "cranking mode" of the starter-generator, in which tensioner arm 34 is blocked by pawl 50 which is rotated anti-clockwise and engages teeth 48 of arm 34. In the latter configuration, the other tensioner arm 32 is completely free to move and is not subjected to any arrest element defining an end-of-travel position. From comparing the position of arm 32 in Figure 2 (floating position) to the position of Figure 1 (blocked position), it is evident that in Figure 2 arm 32 is rotated upwards (anti-clockwise), therefore the arrest elements of Figure 1 do not define an end-of-travel position for arm 32. Similarly, arm 34 is rotated downwards (clockwise) in Figure 1 with respect to Figure 2, therefore the arrest elements of Figure 2 do not define an end-of-travel position for arm 34.

Furthermore, the first and second elements of arrest as indicated by the Examiner do not define a first position of arrest and a second position of end-of-travel for each arm but simply, when active, block the respective arm in a single position. Bartos fails to disclose the arms comprising respective first arrest elements, which are designed to interact with said fixed portion to define respective first positions of arrest of said arms under the action of said elastic means, and respective second arrest elements, which are designed to interact with said fixed portion to define respective second positions of end-of-travel of said arms under the action of the pull of said belt, so that for each arm a travel is limited between a first position defined by the first arrest elements and a second position of end-of-travel defined by the second arrest elements, as recited in amended claim 1.

It is respectfully submitted that Ali does not teach or suggest a combination with Bartos, and Bartos does not teach or suggest a combination with Ali. It would be impermissible hindsight, based on applicants' own disclosure, to combine Ali and Bartos.

Furthermore, even if Ali and Bartos were combined, such a combination would still lack the arms comprising respective first arrest elements, which are designed to interact with said fixed portion to define respective first positions of arrest of said arms under the action of said elastic means, and respective second arrest elements, which are designed to interact with said fixed portion to define respective second positions of end-of-travel of said arms under the action of the pull of said belt, so that for each arm a travel is limited between a first position defined by the first arrest elements and a second position of end-of-travel defined by the second arrest elements, as recited in amended claim 1.

Furthermore, even if Ali and Bartos were combined, such a combination would still lack a single appendage fixed to a base plate and defining a stop for the first arrest elements that

define first positions for the arms and defining a stop for the second arrest elements that define second positions of end of travel for the arms, as recited in amended claim 1.

Therefore, applicants respectfully submit that claim 1, as amended, is not obvious under 35 U.S.C. § 103(a) over Ali in view of Bartos.

Given that amended independent claim 6 contains limitations that are similar to those limitations set forth above, applicants respectfully submit that claim 6, as amended, is not obvious under 35 U.S.C. § 103(a) over Ali in view of Bartos.

Given that claims 2, 3, and 7 depend from amended claims 1 and 6 respectively, and add additional limitations, applicants respectfully submit that claims 2, 3, and 7 are not obvious under 35 U.S.C. § 103(a) over Ali in view of Bartos.

Claims 4 and 5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ali in view of Bartos, as set forth in the discussion of claim 1, and further in view of U.S. Patent No. 6,689,001 to Oliver (“Oliver”).

It is respectfully submitted that none of the references cited by the Examiner teach or suggest a combination with each other. It would be impermissible hindsight, based on applicants’ own disclosure, to combine Oliver, Ali and Bartos.

As set forth above, even if Ali and Bartos were combined, such a combination would still lack the arms comprising respective first arrest elements, which are designed to interact with said fixed portion to define respective first positions of arrest of said arms under the action of said elastic means, and respective second arrest elements, which are designed to interact with said fixed portion to define respective second positions of end-of-travel of said arms under the action of the pull of said belt, so that for each arm a travel is limited between a first position defined by

the first arrest elements and a second position of end-of-travel defined by the second arrest elements, as recited in amended claim 1.

As set forth above, even if Ali and Bartos were combined, such a combination would still lack a single appendage fixed to a base plate and defining a stop for the first arrest elements that define first positions for the arms and defining a stop for the second arrest elements that define second positions of end of travel for the arms, as recited in amended claim 1.

Oliver, in contrast, discloses controlling the reversible torque load pulley. Oliver fails to disclose the arms comprising respective first arrest elements, which are designed to interact with the fixed portion to define respective first positions of arrest of the arms under the action of the elastic means, and respective second arrest elements, which are designed to interact with the fixed portion to define respective second positions of end-of-travel of the arms under the action of the pull of the belt, and the fixed portion including a single appendage fixed to the base plate and defining a stop for the first and second arrest elements of the arms so as to define for each arm a travel limited between a first position of arrest and a second position of end-of-travel, as recited in amended claim 1.

Furthermore, even if Oliver, Bartos, and Ali were combined, such a combination would still lack the arms comprising respective first arrest elements, which are designed to interact with the fixed portion to define respective first positions of arrest of the arms under the action of the elastic means, and respective second arrest elements, which are designed to interact with the fixed portion to define respective second positions of end-of-travel of the arms under the action of the pull of the belt, and the fixed portion including a single appendage fixed to the base plate and defining a stop for the first and second arrest elements of the arms so as to define for each

arm a travel limited between a first position of arrest and a second position of end-of-travel, as recited in amended claim 1.

Given that claims 4 and 5 depend from amended claim 1, and add additional limitations, applicants respectfully submit that claims 4 and 5 are not obvious under 35 U.S.C. § 103(a) over Ali in view of Bartos and further in view of Oliver.

It is respectfully submitted that in view of the amendments and arguments set forth herein, the applicable rejections and objections have been overcome. If the Examiner believes a telephone conference would expedite the prosecution of the present application, the Examiner is invited to call the undersigned at (408) 720-8300.

If there are any additional charges, please charge Deposit Account No. 02-2666.

Respectfully submitted,

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